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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,121	03/30/2007	Donald Alfred Atkinson	04465/025001	7410

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EXAMINER

ZARROLI, MICHAEL C

ART UNIT	PAPER NUMBER
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2839

NOTIFICATION DATE	DELIVERY MODE
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08/18/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/580,121	ATKINSON, DONALD ALFRED	
	Examiner	Art Unit	
	Michael C. Zarroli	2839	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 May 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/13/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. Figure 1 should be designated by a legend such as --Prior Art--. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Objections

3. Claim 2 objected to because of the following informalities: The phrase "conductor s passing." Appropriate correction is required.

4. Claim 12 objected to because of the following informalities: Antecedent problem with "the insulation." Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-7, 10-11, 13, 15-17, 20, 23 rejected under 35 U.S.C. 102(b) as being clearly anticipated by applicant cited Godfrey.

Godfrey discloses an electric machine fig. 2 which includes a magnetically inducible core 20 and at least two elongated electrical current conductors 16 passing through for each a respective aperture 21 through the core with a first end of a first conductor being at a first side of the core fig. 1d and a first end of a second conductor being at the same said first side of the core fig. 1d, and the two respective first ends being electrically connected together by a bridging member 19a or 19b.

Claim 2 Godfrey discloses that a second end of the second conductor is at a second side (fig. 3 lower side) of the core and a first end of a third conductor 16, 15s is at the first side (fig. 3 top side) of the core, and a second end of the third conductor s at the second side of the core, the two respective second ends being electrically connected together by a bridging member 19c or 19d.

Claim 3 Godfrey discloses that a plurality of elongate electrical current conductors passing through for each a respective aperture through the core (figures 1d & 1e) with a first end of a each conductor being at a first side of the core (top side fig. 3) and a second end of each conductor being at a second side of the core (bottom side fig. 3), wherein each bridging member 19 is adapted to electrically connect the plurality of conductors in pairs such that a single

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continuous electrically conductive path is formed (19 is a PCB), running through the core through a plurality of bores 21.

Claim 4 Godfrey discloses that at least four elongate electrical current conductors passing through for each a respective bore (figures 1d or 1e) and two separate bridging members 19a, 19b at the first side of the core wherein a first two of the conductors (fig. 3 e.g. from left 2nd & 4th) are connected electrically together by a said first of the bridging members 19b and a said second two of the conductors (fig. 3 from left 1st & 3rd) are connected together electrically by a second of the bridging members 19a.

Claim 5 Godfrey discloses that a plurality of elongate electrical current conductors 16, 15s passing through for each a respective aperture 21 through the core with a first end of a each conductor being at a first side of the core (fig. 3 top) and a second end of each conductor being at a second side of the core (fig. 3 bottom), and at least two bridging members 19a-19d at each side of the core, wherein each bridging member is adapted to electrically connect the plurality of conductors (figures 4a & 4b) in pairs such that at least two separate continuous electrically conductive paths are formed 15e, each running through the core through a plurality of bores.

Claim 6 Godfrey discloses that each of the separate electrically conductive paths is connected to a different phase of a multi-phase electrical supply (col. 5 lines 19-19-27).

Claim 7 Godfrey discloses that the bridging member is a printed circuit board (col. 4 lines 22-24).

Claim 10 Godfrey discloses that each of the said elongated electrical conductors is a physically straight member that is located within a correspondingly straight bore through the core fig. 3.

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Claim 11 Godfrey discloses that each of the electrical current conductors has an electrically insulating coating 17 located so as to extend around its outer side fig. 1c at least where it is in an adjacent or adjoining relationship with the inner surface of the bore through which it is located fig. 1d.

Claim 13 Godfrey discloses that each of the elongate electrical current conductors is located within a bore passing fully through the core and is of a matching cross-sectional shape and size such that the inner dimensions of the bore are close to external dimensions of the outer surface of the elongate electrical conductor (figures 1d & 1e).

Claim 15 Godfrey discloses that the respective bores are each parallel one with respect to the other fig. 1d.

Claim 16 Godfrey discloses that any or each of the conductors may pass through one or more of the bridging members without electrical contact thereto such that there are independent electrical contacts with respective electrical circuits (fig. 3 shows half the conductors 15s passing through boards 19a or 19c).

Claim 17 Godfrey discloses that the electric machine is an electrical motor (abstract).

Claim 20 Godfrey discloses that the electrical machine is a brushless generator fig. 2 or motor wherein the core is arranged to be a stator (col. 1 lines 10-12) of the generator or motor.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 8 rejected under 35 U.S.C. 103(a) as being unpatentable over applicant cited Godfrey as applied to claim 1 above, and further in view of Carl.

Godfrey does not disclose that the core is comprised of a soft magnetic composite material.

Carl discloses a stator comprised of a soft magnetic composite material (abstract 1st sentence).

At the time the invention was made it would have been obvious to one of ordinary skill in the art to modify Godfrey by manufacturing the stator from a soft magnetic composite as taught by Carl. Well settled case law has shown that merely selecting a known material on the basis of suitability for its intended use is not grounds for a patent, *In re Leshin*, 125 USPQ 416.

9. Claim 22 rejected under 35 U.S.C. 103(a) as being unpatentable over Godfrey in view of Carl.

Godfrey discloses a stator which has a plurality of bores 21 passing through the core material fig. 1d and where there is for each of the bores a straight electrical conductor 16, 15s having an outer insulating coating 17 passing fully through its respective bore fig. 1e with a close outer dimensional fit and there being at each end of the electrical conductor a bridging member which is for each respective end connected to other electric conductors fig. 1d.

Godfrey does not disclose that the stator is comprised of a soft magnetic composite material.

Carl discloses a stator comprised of a soft magnetic composite material (abstract 1st sentence).

At the time the invention was made it would have been obvious to one of ordinary skill in the art to modify Godfrey by manufacturing the core from a soft magnetic composite as taught by Carl. Well settled case law has shown that merely selecting a known material on the basis of suitability for its intended use is not grounds for a patent, *In re Leshin*, 125 USPQ 416. The claim would

have been obvious because the technique for improving a particular class of devices was part of the ordinary capabilities of a person of ordinary skill in the art, in view of the teaching of the technique for improvement in other situations.

10. Claim 9 rejected under 35 U.S.C. 103(a) as being unpatentable over Godfrey.

Godfrey is not specific that the core is comprised of high resistance bonded iron.

At the time the invention was made it would have been obvious to one of ordinary skill in the art to manufacture the core of Godfrey from high resistance bonded iron. Well settled case law has shown that merely selecting a known material on the basis of suitability for its intended use is not grounds for a patent, *In re Leshin*, 125 USPQ 416. The claim would have been obvious because the technique for improving a particular class of devices was part of the ordinary capabilities of a person of ordinary skill in the art, in view of the teaching of the technique for improvement in other situations.

11. Claim 12 rejected under 35 U.S.C. 103(a) as being unpatentable over Godfrey.

Godfrey does not specify that the conductor insulation is an enamel coating.

At the time the invention was made it would have been obvious to one of ordinary skill in the art to manufacture the insulation from an enamel coating. Well settled case law has shown that merely selecting a known material on the basis of suitability for its intended use is not grounds for a patent, *In re Leshin*, 125 USPQ 416. The claim would have been obvious because the technique for improving a particular class of devices was part of the ordinary capabilities of a person of ordinary skill in the art, in view of the teaching of the technique for improvement in other situations.

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12. Claim 14 rejected under 35 U.S.C. 103(a) as being unpatentable over Godfrey in view of Leijon.

Godfrey does not disclose that the bore is coated with an insulating lacquer.

Leijon discloses using an insulating lacquer to coat a component (col. 2 lines 49-54). At the time the invention was made it would have been obvious to one of ordinary skill in the art to use an insulating lacquer as taught by Leijon to coat the bore of Godfrey. The motivation for this is found in the cited lines of Leijon where he indicates that there would be a cost or environmental advantage.

13. Claims 18-19 rejected under 35 U.S.C. 103(a) as being unpatentable over Godfrey.

Godfrey does not specifically indicate that the electric machine could be a generator or transformer.

At the time the invention was made it would have been obvious to one of ordinary skill in the art to utilize the electric machine of Godfrey as either a generator or transformer. Godfrey suggests these possibilities in column 1 lines 50-51. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be used does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham, 2 USPQ2d 1647 (1987)*.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Zarroli whose telephone number is 571-272-2101. The examiner can normally be reached on 8:30 to 4:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, T.C. Patel can be reached on (571) 272-2800 ext 39. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael C. Zarroli/
Primary Examiner, Art Unit 2839

/M. C. Z./
Primary Examiner, Art Unit 2839
MCZ